

Cell Site Name: Quince Orchard
Fixed Asset No.: 10004887
Market: Baltimore/Washington
Address: Darnestown Road RT 124 & RT 28

FIRST AMENDMENT TO LICENSE

THIS FIRST AMENDMENT TO LICENSE ("First Amendment") dated as of the later date below is by and between Montgomery County, Maryland, a body corporate and politic, (hereinafter referred to as "Licensor") and New Cingular Wireless PCS, LLC, successor by merger to Southwestern Bell Mobile Systems, Inc., dba Cellular One Washington/Baltimore, having a mailing address at 575 Morosgo Drive, Atlanta, GA 30324 (hereinafter referred to as "Licensee").

WHEREAS, Licensor and Licensee (or their predecessors in interest) entered into a License Agreement dated July 14th, 1994 ("License"), whereby Licensor licensed to Licensee certain Premises, therein described, that are a portion of the Property located at 121100 Darnestown Road, Montgomery County, State of Maryland and being described as a parcel recorded in Book 7468 at Page 207, all as shown on Tax Map ES 562; and

WHEREAS, the term of the License expired on August 18, 2014 and Licensor acknowledges that Licensee has been occupying the Premises on a month-to-month basis and Licensor has accepted License Fee during such month-to-month period from Licensee and the parties mutually desire to renew the License, memorialize such renewal period and modify the License in certain other respects, all on the terms and conditions contained herein; and

WHEREAS, Licensor and Licensee desire to extend the term of the License; and

WHEREAS, Licensor and Licensee desire to modify, as set forth herein, the License Fee (as defined below) payable under the License; and

WHEREAS, Licensor and Licensee, in their mutual interest, further wish to amend the License as set forth below.

NOW THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Licensor and Licensee agree as follows:

1. **Reinstatement and Ratification.** The License, including all amendments thereto, if any, entered into prior to the date hereof, is attached hereto as **Exhibit B**. Licensor and Licensee hereby reinstate, ratify, confirm and adopt the License, as amended herein, as of the latter signature date below.
2. Exhibit A of the license agreement is hereby deleted in its entirety and replaced with Exhibit A-1.

3. **Term.** The term of the License shall be amended to provide that the License has a new initial term of sixty (60) months ("New Initial Term"), commencing on October 1st, 2017 ("New Term Commencement Date"). As of such New Term Commencement Date, all remaining renewal terms in the License except as set forth herein shall be void and of no further force and consequence. The License will be automatically renewed for up to two (2) additional sixty (60) month terms (each an "Extension Term") upon the same terms and conditions of the License, as amended herein, without further action by Licensee, unless Licensee notifies Licensors in writing of Licensee's intention not to renew the License at least sixty (60) days prior to the expiration of the then current Extension Term. Hereafter, the defined term "Term" shall include the New Initial Term and any applicable Extension Term. Licensors agree and acknowledge that except that as such permitted use or other rights may be amended herein, Licensee may continue to use and exercise its rights under the License as permitted prior to the New Initial Term.
4. **Modification of License Fee.** Commencing on October 1, 2017, the License Fee payable under the License shall be Three Thousand One Hundred and Forty-Six Dollars and 10/100 Dollars (\$3,146.10) per month (the "License Fee"), and shall continue during the Term, subject to adjustment, if any, as provided below. Within sixty (60) days of the New Term Commencement Date Licensee shall pay Licensors a one-time back License Fee amount of Five Thousand No/100 Dollars (\$5,000.00). Upon receipt of payment, License Fee payments for the License term of September 1, 1994 through September 30, 2017 will be deemed current to the date of the New Initial Term.
5. **Future License Fee Increase Monthly Payments.** The License is amended to provide that commencing on October 1, 2018 License Fee shall increase by three (3 %) percent annually over the License Fee paid during the previous year on the anniversary of the New Initial Term and each year thereafter.
6. **24/7 Access.** Licensors hereby grants to Licensee, its authorized licensees, and to any public or private utility serving Licensee's Communications Facility or related equipment, access to the Premises and to and over the Property twenty-four hours per day, seven days per week (24/7), including but not limited to, access from an accessible, open and maintained public road to the Premises, for the installation, maintenance, repair, modification, alteration, or refurbishment of the Communications Facility or any equipment related to such Communications Facility as such access is deemed necessary by Licensee, in its sole discretion, without the requirement of notice by Licensee to Licensors. In the event that any public or private utility serving Licensee's Communications Facility is unable to use the access provided to Licensee, the Licensors hereby agrees to grant additional access to Licensee or to such public or private utility, for the benefit of Licensee, at no cost to Licensee and pursuant to the same terms and conditions as noted above. The terms and conditions regarding access in the License remain in full force and effect, except as modified by this paragraph.

Cell Site Name: Quince Orchard
Fixed Asset No.: 10004887
Market: Baltimore/Washington
Address: Darnestown Road RT 124 & RT 28

7. **Acknowledgement.** Licensors acknowledges that: 1) this First Amendment is entered into of the Licensors free will and volition; 2) Licensors has read and understands this First Amendment and the underlying License and, prior to execution of this First Amendment, was free to consult with counsel of its choosing regarding Licensors decision to enter into this First Amendment and to have counsel review the terms and conditions of this First Amendment; 3) Licensors has been advised and is informed that should Licensors not enter into this First Amendment, the underlying License between Licensors and Licensee, including any termination or non-renewal provision therein, would remain in full force and effect.
8. **Notices.** Paragraph 16 of the License is hereby deleted in its entirety and replaced with the following:

NOTICES. All notices, requests, demands and communications hereunder will be given by first class certified or registered mail, return receipt requested, or by a nationally recognized overnight courier, postage prepaid, to be effective when properly sent and received, refused or returned undelivered. Notices will be addressed to the parties as follows: If to Licensee:

New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration
Re: Cell Site # 10004887
Cell Site Name Quince Orchard (MD); Fixed Asset No.: 10004887
575 Morosgo Drive
Atlanta, GA 30324

With a required copy of the notice sent to the address above to AT&T Legal at:

New Cingular Wireless PCS, LLC
Attn: AT&T Legal Department
Re: Cell Site # 10004887
Cell Site Name Quince Orchard (MD); Fixed Asset No: 10004887
208 S. Akard Street
Dallas, Texas, 75202-4206

A copy sent to the Legal Department is an administrative step which alone does not constitute legal notice.

Cell Site Name: Quince Orchard
Fixed Asset No.: 10004887
Market: Baltimore/Washington
Address: Darnestown Road RT 124 & RT 28

And as to Licensor:

Montgomery County, Maryland
Department of General Services
Office of Real Estate
101 Monroe Street, 9th floor
Rockville, Maryland 20850
Attn: Director

With a copy that does not constitute notice to:

Office of the County Attorney for Montgomery County, Maryland
101 Monroe Street, 3rd Floor
Rockville, Maryland 20850
Attn: DGS Attorney

Either party hereto may change the place for the giving of notice to it by thirty (30) days prior written notice to the other as provided herein."

9. **Other Terms and Conditions Remain.** In the event of any inconsistencies between the License and this First Amendment, the terms of this First Amendment shall control. Except as expressly set forth in this First Amendment, the License otherwise is unmodified and remains in full force and effect. Each reference in the License to itself shall be deemed also to refer to this First Amendment.
10. **Capitalized Terms.** All capitalized terms used but not defined herein shall have the same meanings as defined in the License.

[NO MORE TEXT ON THIS PAGE - SIGNATURES TO FOLLOW ON NEXT PAGE]

Cell Site Name: Quince Orchard
Fixed Asset No.: 10004887
Market: Baltimore/Washington
Address: Darnestown Road RT 124 & RT 28

IN WITNESS WHEREOF, the parties have caused their properly authorized representatives to execute and seal this First Amendment on the date and year below.

LICENSOR:

Montgomery County,
Maryland

LICENSEE:

New Cingular Wireless PCS, LLC,
a Delaware limited liability company

By: AT&T Mobility Corporation
Its: Manager

By: Ramona Bell-Pearson

Print Name: Ramona Bell-Pearson

Title: Assistant Chief Administrative Officer

Date: 3/5/18

By: Jennifer Van Riper

Print Name: Jennifer Van Riper
Area Manager, Construction & Engineering
AT&T Mobility

Title: _____

Date: 2/2/18

Cell Site Name: Quince Orchard
Fixed Asset No.: 10004887
Market: Baltimore/Washington
Address: Darnestown Road RT 124 & RT 28

LICENSOR ACKNOWLEDGEMENT

STATE OF Maryland)

COUNTY OF Montgomery)

I CERTIFY that on March 5, 2018,
Ramona Bell-Pearson [name of representative] personally came before me and
acknowledged under oath that he or she:

- (a) is the ACAO [title] of Office of the County Executive
[name of corporation], the corporation named in the attached instrument,
(b) was authorized to execute this instrument on behalf of the corporation; and
(c) executed the instrument as the act of the corporation.

Julie L. White
Notary Public: Julie L. White
My Commission Expires: 4/30/2021

Cell Site Name: Quince Orchard
Fixed Asset No.: 10004887
Market: Baltimore/Washington
Address: Darnestown Road RT 124 & RT 28

LICENSEE ACKNOWLEDGEMENT

STATE OF Maryland)
) SS.
COUNTY OF Charles)

I certify that I know or have satisfactory evidence that Jennifer Van Riper is the person who appeared before me, and said person acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute the instrument and acknowledged it as the Area Manager C&E of AT&T Mobility Corporation, the Manager of **New Cingular Wireless PCS, LLC, a Delaware limited liability company**, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

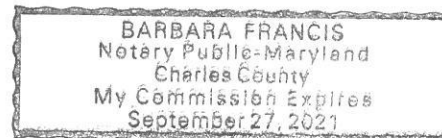
DATED: 2/2/18.

Notary Seal

Barbara Francis
(Signature of Notary)

(Legibly Print or Stamp Name of Notary)
Notary Public in and for the State of

My appointment expires: _____



Cell Site Name: Quince Orchard
Fixed Asset No.: 10004887
Market: Baltimore/Washington
Address: Darnestown Road RT 124 & RT 28

EXHIBIT A-1

Construction Drawings dated August 18, 2017

SHEET INDEX

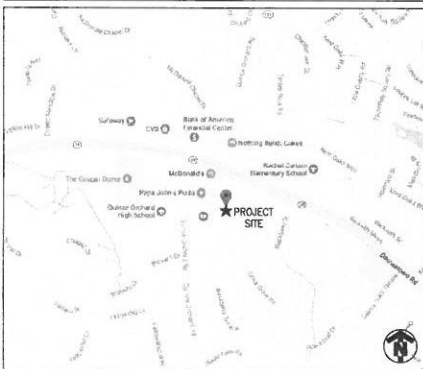
NO.	DESCRIPTION
T1	TITLE PAGE
C1	GENERAL NOTES
C2	SITE PLAN
C3	COMPOUND PLAN
C4	ELEVATION AND RF SCHEDULE
C5	ANTENNA ORIENTATION PLAN
C6	PAD LAYOUT AND SCOPE
C7	FIBER/DC DETAILS
C8	EQUIPMENT DETAILS
C9	RF PLUMBING DIAGRAM
C10	RRH WIRING DIAGRAM
E1	AC PANEL SCHEDULE AND AUDIT RESULTS
G1	GROUNDING DETAILS

DRIVING DIRECTIONS

FROM 7150 STANDARD DRIVE:

1. HEAD SOUTHWEST ON STANDARD DR
2. TURN LEFT ONTO PARKWAY DR
3. TURN RIGHT ONTO PARK CIR DR
4. TURN LEFT ONTO COCA COLA DR
5. TURN RIGHT TO MERGE ONTO MD-100 W TOWARD ELLICOTT CITY
6. TAKE I-95 S AND MD-200 W TO SAM EIG HWY IN GAITHERSBURG
7. MERGE ONTO MD-100 W
8. TAKE EXIT 5A-B TOWARD WASHINGTON
9. MERGE ONTO I-95 S
10. USE THE RIGHT 2 LANES TO MERGE ONTO MD-200
11. CONTINUE ONTO I-370 W
12. DRIVE TO DARNESTOWN RD IN NORTH POTOMAC
13. CONTINUE ONTO SAM EIG HWY
14. USE THE MIDDLE LANE TO TURN SLIGHTLY RIGHT TOWARD MD-119 N
15. USE THE LEFT LANE TO TURN SLIGHTLY RIGHT ONTO MD-119 N
16. TURN LEFT AT THE 1ST CROSS STREET ONTO MUDDY BRANCH RD
17. TURN RIGHT ONTO DARNETOWN RD
18. MAKE A U-TURN

LOCATION MAP



PROJECT
LTE 2C TO LTE 5C
SITE NAME
QUINCE ORCHARD

USID

54845

FA SITE NUMBER

10004887

SITE ADDRESS

DARNESTOWN ROAD ROUTE 124 AND ROUTE 28
GAITHERSBURG, MD 20878

STRUCTURE TYPE

MONOPOLE TOWER

GENERAL NOTES

- HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED.
- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
- FACILITY HAS NO PLUMBING OR REFRIGERANTS.
- THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.
- ALL NEW MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. EQUIPMENT, ANTENNAS/RRH AND CABLES FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.
- THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON STORMWATER DRAINAGE.
- NO SANITARY SEWER, POTABLE WATER, OR TRASH DISPOSAL SERVICE IS REQUIRED
- NO COMMERCIAL SIGNAGE IS PROPOSED

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED WITH ANY LOCAL AMENDMENTS BY THE LOCAL GOVERNING AUTHORITIES:

- 2015 INTERNATIONAL BUILDING CODE
- 2014 NATIONAL ELECTRICAL CODE
- 2012 NATIONAL FIRE PROTECTION ASSOCIATION 101
- 2012 NATIONAL FIRE PROTECTION ASSOCIATION 1
- LOCAL BUILDING CODES
- CITY/COUNTY ORDINANCES
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS (AISC)
- UNDERWRITERS LABORATORIES APPROVED ELECTRICAL PRODUCTS.
- ANSI EIA/TIA 222 REV. G
- TIA 507
- INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS B1
- IEEE C2 (LATEST EDITION)
- TELCORDIA GR-1275
- ANSI T1.311

PROJECT SITE INFORMATION

SITE NAME:	QUINCE ORCHARD
USID:	54845
FA SITE #:	10004887
SITE ADDRESS:	DARNESTOWN ROAD ROUTE 124 AND ROUTE 28 GAITHERSBURG, MD 20878
JURISDICTION:	MONTGOMERY COUNTY
ZONING:	R200
TAX ID:	06-00396831
PROPERTY AREA:	4.7 ACRES ±
SITE COORDINATES:	
LATITUDE:	N 39° 6' 57.8304" (NAD 83)
LONGITUDE:	W -77° 15' 4.23" (NAD 83)
ELEVATION:	403± (AMSL)
RAD CENTER:	151± (AGL)
TOWER OWNER:	CROWN CASTLE 9011 ARBORETUM PARKWAY, SUITE 101 RICHMOND, VA 23236
CBU:	839913
CROWN SITE NAME:	HARMONY
LAND OWNER:	SHURGARD MARYLAND PROPERTIES INC PUBLIC STORAGE DEPT PT 08081 PO BOX 25025 GLENDALE, CA 91221-5025
APPLICANT:	AT&T MOBILITY 7150 STANDARD DRIVE HANOVER, MD 21076

PROJECT TEAM INFORMATION

CLIENT REPRESENTATIVE:	SMARTLINK, LLC 1362 MELLON ROAD HANOVER, MD 21076
CLIENT REP. CONTACT:	DANIEL DEROSE DANIEL.DEROSE@SMARTLINKLLC.COM 321-615-6814
SITE ACQUISITION:	SMARTLINK, LLC 1362 MELLON ROAD HANOVER, MD 21076 DANIEL DEROSE DANIEL.DEROSE@SMARTLINKLLC.COM 321-615-6814
ENGINEER:	INFINIGY SOLUTIONS 1033 WATERVLIET SHAKER ROAD ALBANY, NY 12205
ENGINEER CONTACT:	MATT LIVERETTE MLIVERETTE@INFINIGY.COM 301-928-8789
RF ENGINEER:	AT&T 7150 STANDARD DRIVE HANOVER, MD 21076
RF CONTACT:	STEVE HATHWAY AT&T RAN ENGINEER 443-770-4443



Know what's below.
Call before you dig.

TO OBTAIN LOCATION OF PARTICIPANTS
UNDERGROUND FACILITIES MEET ONE
YOU DIG IN MARYLAND WEST OF
CHESAPEAKE BAY, CALL MISS UTILITY
OF MARYLAND
TOLL FREE 1-800-257-7777 OR
WWW.811.MD
MARYLAND STATUTE
REQUIRES ONE OF 2
WORKING DAYS NOTICE
BEFORE YOU EXCAVATE

INFINIGY



PROFESSIONAL CERTIFICATION: I HEREBY
CERTIFY THAT THESE DOCUMENTS WERE
PREPARED OR SUPERVISED BY ME, OR
THAT I AM A QUALIFIED LICENSED
PROFESSIONAL ENGINEER UNDER THE
LAWS OF THE STATE OF MARYLAND
LICENSE NO. 33,348 EXP. 12/31/2018

UNAUTHORIZED ALTERATION OR ADDITION
TO THIS DOCUMENT IS A VIOLATION OF
APPLICABLE STATE AND/OR LOCAL LAWS

Project Title
QUINCE ORCHARD
USID# 54845
FA # 10004887
DARNESTOWN ROAD
ROUTE 124 AND ROUTE 28
GAITHERSBURG, MD 20878

Prepared For
smartlink
1362 MELLON RD
HANOVER, MD 21076
TEL: (410) 982-8043
FAX: (410) 982-8043

Drawing Title
TITLE PAGE

Drawing Number
T1

GENERAL NOTES

PART 1 - GENERAL REQUIREMENTS

- 1.1 THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:
 - A. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
 - B. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
 - C. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE - "NEC").
 - D. AND NFPA 101 (LIFE SAFETY CODE)
 - E. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM)
 - F. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE).
- 1.2 DEFINITIONS:
 - A. WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.
 - B. COMPANY: AT&T CORPORATION
 - C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.
 - D. CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.
 - E. THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.
- 1.3 POINT OF CONTACT: COMMUNICATION BETWEEN THE COMPANY AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE COMPANY SITE DEVELOPMENT SPECIALIST OR OTHER PROJECT COORDINATOR APPOINTED TO MANAGE THE PROJECT FOR THE COMPANY.
- 1.4 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.
- 1.5 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES, AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.
 - A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.
- 1.6 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.
- 1.7 NOTICE TO PROCEED:
 - A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED.
 - B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE AT&T WITH AN OPERATIONAL WIRELESS FACILITY.

PART 2 - EXECUTION

- 2.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE, BUT ARE NOT LIMITED TO, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSORS OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.
- 2.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.
- 2.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HEREWITH, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST AGENCY.

- 2.4 COMPANY FURNISHED MATERIAL AND EQUIPMENT: ALL HANDLING, STORAGE AND INSTALLATION OF COMPANY FURNISHED MATERIAL AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
 - A. CONTRACTOR SHALL SECURE ALL OTHER REQUIRED WORK RELATED MATERIALS NOT PROVIDED BY AT&T TO SUCCESSFULLY CONSTRUCT A WIRELESS FACILITY.
- 2.5 DIMENSIONS: VARIOUS DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS, DO NOT SCALE DRAWINGS.
- 2.6 EXISTING CONDITIONS: NOTIFY THE COMPANY REPRESENTATIVE OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND ENGINEER.

PART 3 - RECEIPT OF MATERIAL & EQUIPMENT

- 3.1 RECEIPT OF MATERIAL AND EQUIPMENT: CONTRACTOR IS RESPONSIBLE FOR AT&T PROVIDED MATERIAL AND EQUIPMENT AND UPON RECEIPT SHALL:
 - A. ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.
 - B. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.
 - C. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION AS REQUIRED IN AGREEMENT.
 - D. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER RECEIPT, REPORT TO AT&T OR ITS DESIGNATED PROJECT REPRESENTATIVE OF SUCH.
 - E. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.
 - F. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE TO SITE.

PART 4 - GENERAL REQUIREMENTS FOR CONSTRUCTION

- 4.1 CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.
- 4.2 EQUIPMENT ROOMS SHALL AT ALL TIMES BE MAINTAINED "BROOM CLEAN" AND CLEAR OF DEBRIS.
- 4.3 CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO DISCOVER AND LOCATE ANY HAZARDOUS CONDITION.
 - A. IN THE EVENT CONTRACTOR ENCOUNTERS ANY HAZARDOUS CONDITION WHICH HAS NOT BEEN ABATED OR OTHERWISE MITIGATED, CONTRACTOR AND ALL OTHER PERSONS SHALL IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND NOTIFY COMPANY IN WRITING. THE WORK IN THE AFFECTED AREA SHALL NOT BE RESUMED EXCEPT BY WRITTEN NOTIFICATION BY COMPANY.
 - B. CONTRACTOR AGREES TO USE CARE WHILE ON THE SITE AND SHALL NOT TAKE ANY ACTION THAT WILL OR MAY RESULT IN OR CAUSE THE HAZARDOUS CONDITION TO BE FURTHER RELEASED IN THE ENVIRONMENT, OR TO FURTHER EXPOSE INDIVIDUALS TO THE HAZARD.
- 4.4 CONTRACTOR'S ACTIVITIES SHALL BE RESTRICTED TO THE PROJECT LIMITS. SHOULD AREAS OUTSIDE THE PROJECT LIMITS BE AFFECTED BY CONTRACTOR'S ACTIVITIES, CONTRACTOR SHALL IMMEDIATELY RETURN THEM TO ORIGINAL CONDITION.
- 4.5 CONDUCT TESTING AS REQUIRED HEREIN.

PART 5 - TESTS AND INSPECTIONS

- 5.1 TESTS AND INSPECTIONS:
 - A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.
 - B. CONTRACTOR SHALL COORDINATE TEST AND INSPECTION SCHEDULES WITH COMPANY'S REPRESENTATIVE WHO MUST BE ON SITE TO WITNESS SUCH TESTS AND INSPECTIONS.
 - C. WHEN THE USE OF A THIRD PARTY INDEPENDENT TESTING AGENCY IS REQUIRED, THE AGENCY THAT IS SELECTED MUST PERFORM SUCH WORK ON A REGULAR BASIS IN THE STATE WHERE THE PROJECT IS LOCATED AND HAVE A THOROUGH UNDERSTANDING OF LOCAL AVAILABLE MATERIALS, INCLUDING THE SOIL, ROCK, AND GROUNDWATER CONDITIONS.
 - D. THE THIRD PARTY TESTING AGENCY IS TO BE FAMILIAR WITH THE APPLICABLE REQUIREMENTS FOR THE TESTS TO BE DONE, EQUIPMENT TO BE USED, AND ASSOCIATED HEALTH AND SAFETY ISSUES.
 - E. SITE RESISTANCE TO EARTH TESTING PER EXHIBIT: CELL SITE GROUNDING SYSTEM DESIGN.

- F. ANTENNA AND COAX SWEEP TESTS PER EXHIBIT: ANTENNA TRANSMISSION LINE ACCEPTANCE STANDARDS.
- G. ALL OTHER TESTS REQUIRED BY COMPANY OR JURISDICTION.

PART 6 - TRENCHING AND BACKFILLING

- 6.1 TRENCHING AND BACKFILLING: THE CONTRACTOR SHALL PERFORM ALL EXCAVATION OF EVERY DESCRIPTION AND OF WHATEVER SUBSTANCES ENCOUNTERED, TO THE DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS OTHERWISE SPECIFIED.
 - A. PROTECTION OF EXISTING UTILITIES: THE CONTRACTOR SHALL CHECK WITH THE LOCAL UTILITIES AND THE RESPECTIVE UTILITY LOCATOR COMPANIES PRIOR TO STARTING EXCAVATION OPERATIONS IN EACH RESPECTIVE AREA TO ASCERTAIN THE LOCATIONS OF KNOWN UTILITY LINES. THE LOCATIONS, NUMBER AND TYPES OF EXISTING UTILITY LINES DETAILED ON THE CONSTRUCTION DRAWINGS ARE APPROXIMATE AND DO NOT REPRESENT EXACT INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL LINES DAMAGED DURING EXCAVATION AND ALL ASSOCIATED OPERATIONS. ALL UTILITY LINES UNCOVERED DURING THE EXCAVATION OPERATIONS, SHALL BE PROTECTED FROM DAMAGE DURING EXCAVATION AND ASSOCIATED OPERATIONS. ALL REPAIRS SHALL BE APPROVED BY THE UTILITY COMPANY.
 - B. HAND DIGGING: UNLESS APPROVED IN WRITING OTHERWISE, ALL DIGGING WITHIN AN EXISTING CELL SITE COMPOUND IS TO BE DONE BY HAND.
 - C. DURING EXCAVATION, MATERIAL SUITABLE FOR BACKFILLING SHALL BE STOCKPILED IN AN ORDERLY MANNER A SUFFICIENT DISTANCE FROM THE BANKS OF THE TRENCH TO AVOID OVERLOADING AND TO PREVENT SLIDES OR CAVE-INS. ALL EXCAVATED MATERIALS NOT REQUIRED OR SUITABLE FOR BACKFILL SHALL BE REMOVED AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
 - D. GRADING SHALL BE DONE AS MAY BE NECESSARY TO PREVENT SURFACE WATER FROM FLOWING INTO TRENCHES OR OTHER EXCAVATIONS, AND ANY WATER ACCUMULATING THEREIN SHALL BE REMOVED BY PUMPING OR BY OTHER APPROVED METHOD.
 - E. SHEETING AND SHORING SHALL BE DONE AS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR THE SAFETY OF PERSONNEL. UNLESS OTHERWISE INDICATED, EXCAVATION SHALL BE BY OPEN CUT, EXCEPT THAT SHORT SECTIONS OF A TRENCH MAY BE TUNNELED IF, THE CONDUIT CAN BE SAFELY AND PROPERLY INSTALLED AND BACKFILL CAN BE PROPERLY TAMPED IN SUCH TUNNEL SECTIONS. EARTH EXCAVATION SHALL COMPRISE ALL MATERIALS AND SHALL INCLUDE CLAY, SILT, SAND, MUCK, GRAVEL, HARDPAN, LOOSE SHALE, AND LOOSE STONE.
 - F. TRENCHES SHALL BE OF NECESSARY WIDTH FOR THE PROPER LAYING OF THE CONDUIT OR CABLE, AND THE BANKS SHALL BE AS NEARLY VERTICAL AS PRACTICABLE. THE BOTTOM OF THE TRENCHES SHALL BE ACCURATELY GRADED TO PROVIDE UNIFORM BEARING AND SUPPORT FOR EACH SECTION OF THE CONDUIT OR CABLE ON UNDISTURBED SOIL AT EVERY POINT ALONG ITS ENTIRE LENGTH. EXCEPT WHERE ROCK IS ENCOUNTERED, CARE SHALL BE TAKEN NOT TO EXCAVATE BELOW THE DEPTHS INDICATED. WHERE ROCK EXCAVATIONS ARE NECESSARY, THE ROCK SHALL BE EXCAVATED TO A MINIMUM OVER DEPTH OF 6 INCHES BELOW THE TRENCH DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR SPECIFIED. OVER DEPTHS IN THE ROCK EXCAVATION AND UNAUTHORIZED OVER DEPTHS SHALL BE THOROUGHLY BACK FILLED AND TAMPED TO THE APPROPRIATE GRADE. WHENEVER MET OR OTHERWISE UNSTABLE SOIL THAT IS INCAPABLE OF PROPERLY SUPPORTING THE CONDUIT OR CABLE IS ENCOUNTERED IN THE BOTTOM OF THE TRENCH, SUCH SOIL SHALL BE REMOVED TO A MINIMUM OVER DEPTH OF 6 INCHES AND THE TRENCH BACKFILLED TO THE PROPER GRADE WITH EARTH OF OTHER SUITABLE MATERIAL, AS HEREINAFTER SPECIFIED.
 - G. BACKFILLING OF TRENCHES: TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL SPECIFIED TESTS HAVE BEEN PERFORMED AND ACCEPTED. WHERE COMPACTED BACKFILL IS NOT INDICATED THE TRENCHES SHALL BE CAREFULLY BACKFILLED WITH SELECT MATERIAL SUCH AS EXCAVATED SOILS THAT ARE FREE OF ROOTS, SOD, RUBBISH OR STONES, DEPOSITED IN 6 INCH LAYERS AND THOROUGHLY AND CAREFULLY RAMMED UNTIL THE CONDUIT OR CABLE HAS A COVER OF NOT LESS THAN 1 FOOT. THE REMAINDER OF THE BACKFILL MATERIAL SHALL BE GRANULAR IN NATURE AND SHALL NOT CONTAIN ROOTS, SOD, RUBBING, OR STONES OF 2-1/2 INCH MAXIMUM DIMENSION. BACKFILL SHALL BE CAREFULLY PLACED IN THE TRENCH AND IN 1 FOOT LAYERS AND EACH LAYER TAMPED. SETTLING THE BACKFILL WITH WATER WILL BE PERMITTED. THE SURFACE SHALL BE GRADED TO A REASONABLE UNIFORMITY AND THE MOUNDING OVER THE TRENCHES LEFT IN A UNIFORM AND NEAT CONDITION.

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER
	NON-FUSIBLE DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	SURFACE MOUNTED PANEL BOARD
	TRANSFORMER
	KILOWATT HOUR METER
	JUNCTION BOX
	PULL BOX TO NEC/TELCO STANDARDS
	UNDERGROUND UTILITIES
	EXOTHERMIC WELD CONNECTION
	MECHANICAL CONNECTION
	GROUND ROD
	GROUND ROD WITH INSPECTION SLEEVE
	GROUND BAR
	120AC DUPLEX RECEPTACLE
	GROUND CONDUCTOR
	DC POWER AND FIBER OPTIC TRUNK CABLES
	DC POWER CABLES

REPRESENTS DETAIL NUMBER
 REF. DRAWING NUMBER

ABBREVIATIONS

CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
MIGB	MASTER ISOLATED GROUND BAR
SS	SELF SUPPORTING TOWER
GPS	GLOBAL POSITIONING SYSTEM
TYP.	TYPICAL
DWG	DRAWING
BCW	BARE COPPER WIRE
BCF	BELOW FINISH GRADE
PVC	POLYVINYL CHLORIDE
CAB	CABINET
CON	CONDUIT
SS	STAINLESS STEEL
G	GROUND
AWG	AMERICAN WIRE GAUGE
RWC	RIGID GALVANIZED STEEL
AHJ	AUTHORITY HAVING JURISDICTION
TLNA	TOWER TOP LOW NOISE AMPLIFIER
UNO	UNLESS NOTED OTHERWISE
ENT	ELECTRICAL METALLIC TUBING
ACL	ABOVE GROUND LEVEL

INFINIGY

at&t



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED AND PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12406, EXPI. 12/31/2018.

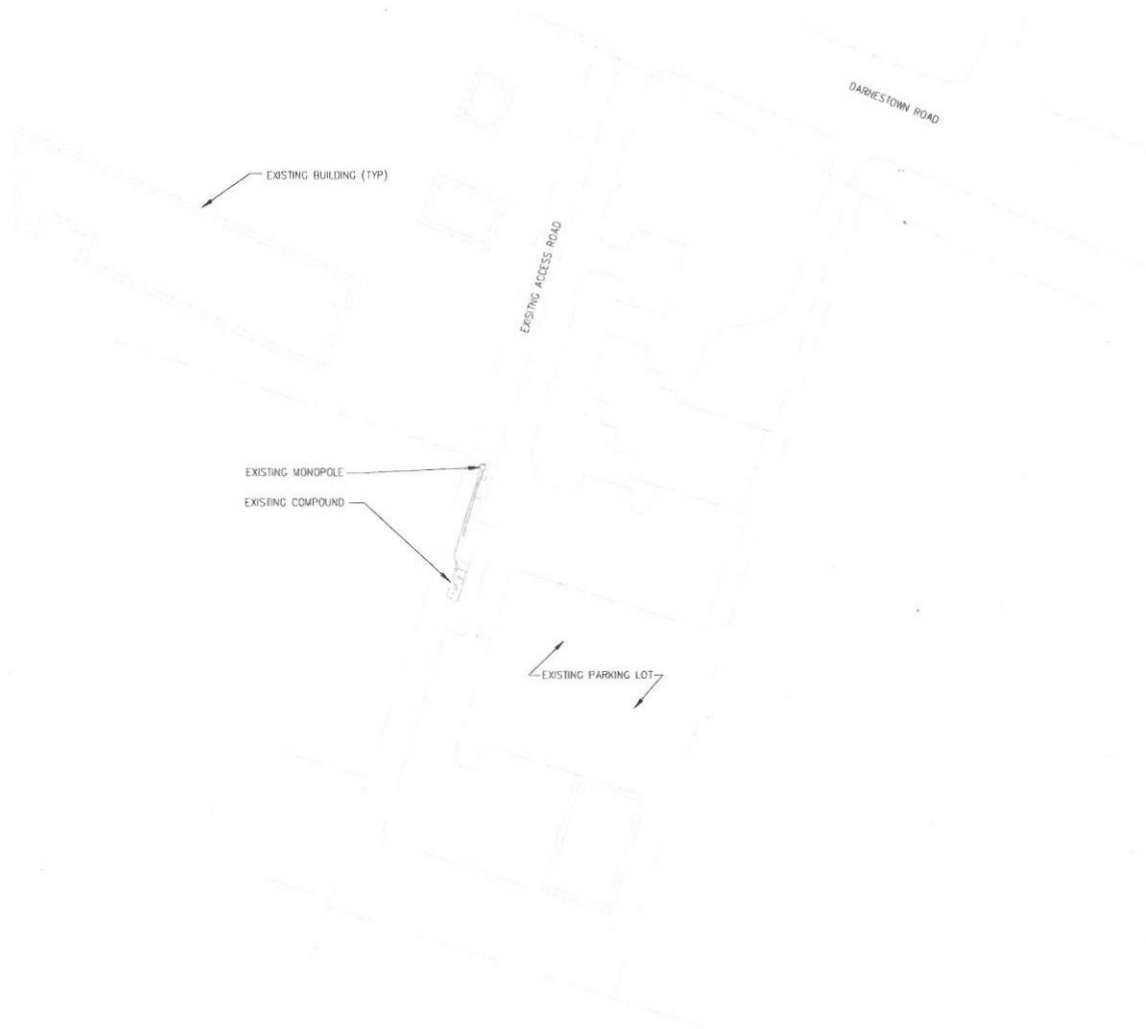
UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS.

A. COLORED FOR REVIEW: YES/NO
 B. SUBMITTAL: YES/NO
 C. DATE: 8/27/21
 D. DESIGNED: YES/NO
 E. DATE: 8/27/21
 F. CHECKED: YES/NO
 G. DATE: 8/27/21
 PROJECT NUMBER: 499-092

Project Title: QUINCE ORCHARD
 USID# 54845
 FA # 10004887
 DANESTOWN ROAD
 ROUTE 134 AND ROUTE 28
 GANTHERBURG, MD 20818

Prepared For: smartlink
 1351 YELLOW POND
 HANOVER, MD 21076
 TEL: (410) 582-8643
 FAX: (410) 582-8642

Drawing Title: GENERAL NOTES
 Drawing Number: C1



1 SITE PLAN
C2 SCALE: AS NOTED

GRAPHIC SCALE:
100' 50' 0 50' 100'
SCALE (11x17): 1" = 100'-0"
SCALE (22x34): 1" = 50'-0"

INFINIGY

1033 WATERVIEW DRIVE
ALBANY, NY 12212
TEL: (518) 860-0792
FAX: (518) 860-0793



1155 STALCAP DRIVE
HAIOWEP, MD 21076

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 36338 EXP. 12/31/2018

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS.

Rev.	Sample	Revision	Date
1	ISSUED FOR REVIEW	1.0	8/16/21
2			
3			
4			
5			
6			
7			
8			
9			
10			

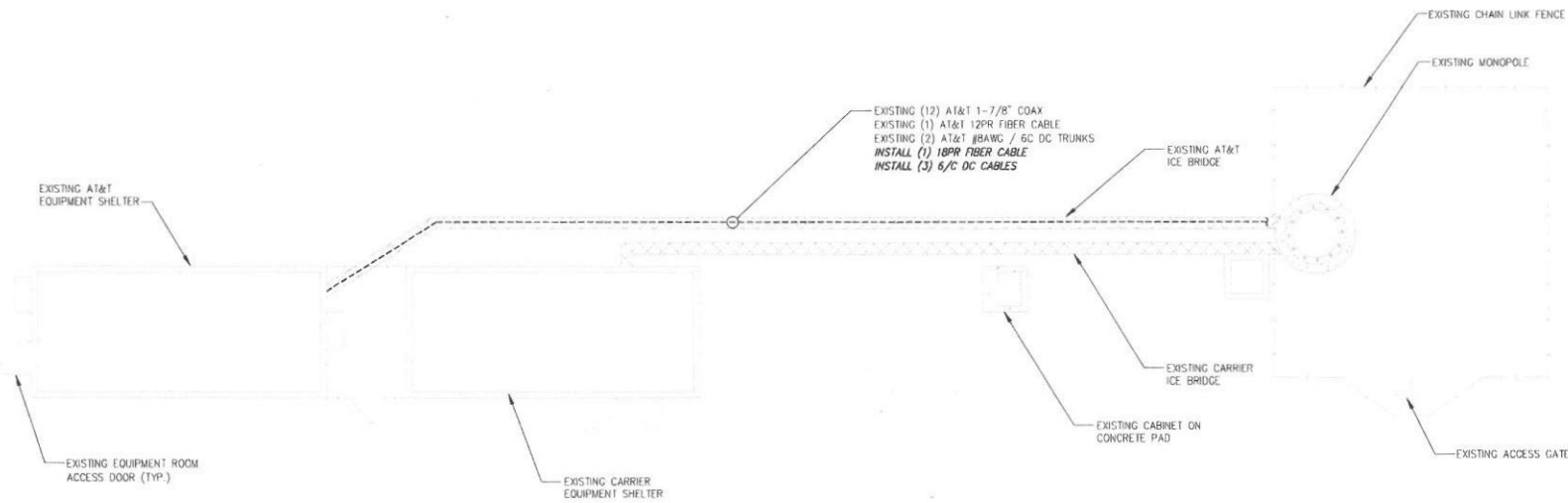
Project Number: 499.002

Project Title: QUINCE ORCHARD
USID# 54845
FA # 10004887
DARNESTOWN ROAD
ROUTE 124 AND ROUTE 28
CATHERBURG, MD 20878

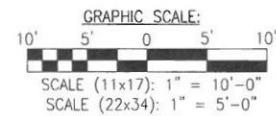
Prepared For:
smartlink
1362 WELLS RD
HAIOWEP, MD 21076
TEL: (410) 862-8043
FAX: (442) 221-5962

Drawing Title: SITE PLAN

Drawing Number: C2



1
C3 COMPOUND PLAN
SCALE: AS NOTED



INFINIGY
1033 WATERPALET SHALE RD
DARNESTOWN, MD 21046
TEL: (301) 860-0726
FAX: (301) 860-0723

at&t
THIS STANDARD DEVICE
HAS BEEN APPROVED BY
HARRISBURG, MD 21756

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 10338 EXP. 12/31/2018

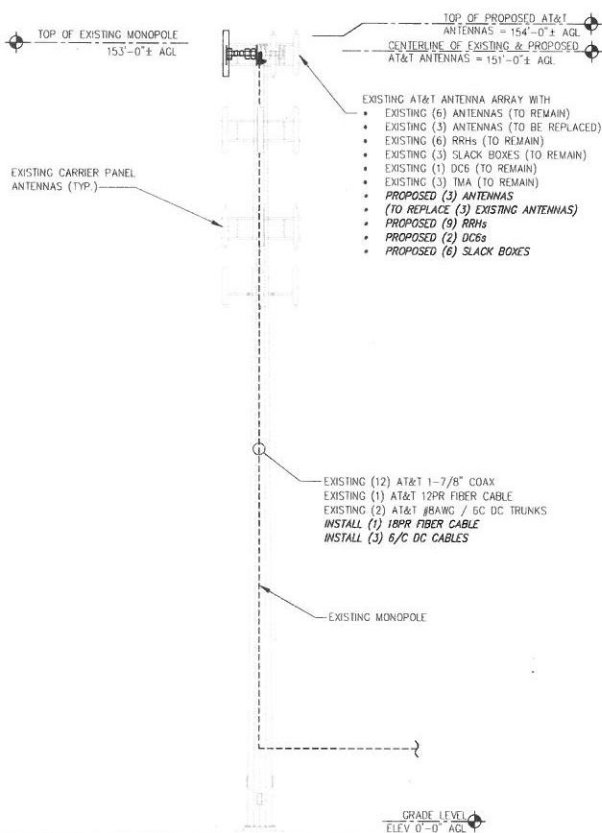
NO.	DATE FOR REVIEW	BY	DATE
1	8/21/07	8/21/07	8/21/07
2	8/21/07	8/21/07	8/21/07

Project Number: 409-002
Project Title: QUINCE ORCHARD
USID# 54845
FA # 10004887
DARNESTOWN ROAD
ROUTE 174 AND ROUTE 28
GAITHERSBURG, MD 20878

Prepared For:
smartlink
1305 MELBURN RD
HARRISBURG, MD 21756
TEL: (410) 862-8643
FAX: (410) 221-0962

Drawing Title: **COMPOUND PLAN**
Drawing Number: **C3**

NOTE:
INFINIGY ENGINEERING HAS NOT EVALUATED THE TOWER OR MOUNT LOADING FOR THIS SITE, AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY REGARDING ITS EXISTING OR PROPOSED LOADING. FINAL INSTALLATION TO COMPLY WITH RESULTS OF PASSING STRUCTURAL ANALYSIS.



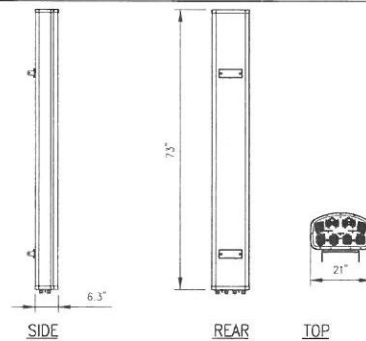
1 ELEVATION VIEW
C4 SCALE: NOT TO SCALE

PROPOSED CABLE SCHEDULE AND RF SYSTEM DESIGN PLAN												
SECTOR	ANTENNA POSITION	ANTENNA MAKE	ANTENNA MODEL	RAD. CTR. FT. AGL	AZIMUTH	RRH/TMA QTY/MAKE/MODEL	DIPLEXER QTY/MAKE/MODEL	FEEDER TYPE/QTY/SIZE	DC TRUNK QTY/SIZE/CT	CABLE LENGTH	E-TILT	M-TILT
A	#1	KATHREIN	80010121	151'-0"	0°	-	(4) LGP13519	(2) 7/8" COAX	-	245'±	2°	0°
	#2	POWERWAVE	P65-16-XLH-RR	151'-0"	0°	RRH2x40W-07L RRH2x60-1900A-4R	-	(1) 12PR FIBER TRUNK (SHARED)	(2) #8AWG 6/C (SHARED)	245'±	2°	2°
	#4	KMW	EPBQ-654L8H6-L2	151'-0"	0°	RRH-FRBI (B14) B66A-RRH4x45 RRH4x25-WCS-4R	-	(1) 18PR FIBER TRUNK (SHARED)	(3) #8 AWG 6/C (SHARED)	245'±	6° 2° 2°	0°
B	#1	KATHREIN	80010121	151'-0"	120°	-	(4) LGP13519	(2) 7/8" COAX	-	245'±	7°	0°
	#2	POWERWAVE	P65-16-XLH-RR	151'-0"	120°	RRH2x40W-07L RRH2x60-1900A-4R	-	(1) 12PR FIBER TRUNK (SHARED)	(2) #8AWG 6/C (SHARED)	245'±	2° 4°	2°
	#4	KMW	EPBQ-654L8H6-L2	151'-0"	120°	RRH-FRBI (B14) B66A-RRH4x45 RRH4x25-WCS-4R	-	(1) 18PR FIBER TRUNK (SHARED)	(3) #8 AWG 6/C (SHARED)	245'±	5° 2° 2°	0°
C	#1	KATHREIN	80010121	151'-0"	240°	-	(4) LGP13519	(2) 7/8" COAX	-	245'±	2°	0°
	#2	POWERWAVE	P65-16-XLH-RR	151'-0"	240°	RRH2x40W-07L RRH2x60-1900A-4R	-	(1) 12PR FIBER TRUNK (SHARED)	(2) #8AWG 6/C (SHARED)	245'±	4° 4°	2°
	#4	KMW	EPBQ-654L8H6-L2	151'-0"	240°	RRH-FRBI (B14) B66A-RRH4x45 RRH4x25-WCS-4R	-	(1) 18PR FIBER TRUNK (SHARED)	(3) #8 AWG 6/C (SHARED)	245'±	2° 2° 2°	0°

KEY:
EXISTING
PROPOSED

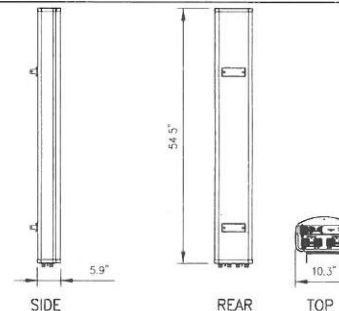
RF DESIGN NOTE:
THIS ANTENNA AND CABLE SCHEDULE HAS BEEN CREATED USING THE FOLLOWING AT&T RFDS DATED: 06/01/17 REVISION: 1.0 ALL ANTENNA DESIGN, ZONING, STRUCTURAL ANALYSIS PERMITS AND COMPLIANCE SUBMISSIONS ARE COORDINATED WITH THE AFOREMENTIONED DOCUMENT.

2 ANTENNA SCHEDULE
C4 NOT TO SCALE



KMW MODEL NO: EPBQ-654L8H6-L2
RADOME MATERIAL: FIBERGLASS, UV RESISTANT
RADOME COLOR: LIGHT GRAY
DIMENSIONS, HxWxD: 73"x21"x6.3"
WEIGHT, W/ PRE-MOUNTED BRACKETS: 72.8 LBS
CONNECTOR: 4.3-10 DIN FEMALE

3 ANTENNA DETAIL
C4 NOT TO SCALE



KATHREIN MODEL NO: 80010121V01
RADOME MATERIAL: FIBERGLASS, UV RESISTANT
RADOME COLOR: LIGHT GRAY
DIMENSIONS, HxWxD: 54.5"x10.3"x5.9"
WEIGHT, W/ PRE-MOUNTED BRACKETS: 44.1 LBS
CONNECTOR: 7-16 DIN FEMALE

4 REMOVED ANTENNA DETAIL
C4 NOT TO SCALE

1033 WATER/LET SHAKE PD
ALBANY NY 12205
TEL (518) 886-0793
FAX (518) 886-0793

718-514-0400 PS/E
HUNTER, NY 10806
HUNTER, NY 10806

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 94318 EXP. 12/31/2019

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS

ISSUED FOR REVIEW	DATE	BY
DATE	DATE	DATE

Drawn: EL Date: 8/27/21
Designed: ES Date: 8/25/21
Checked: AD Date: 8/30/21

Project Number: 499-002

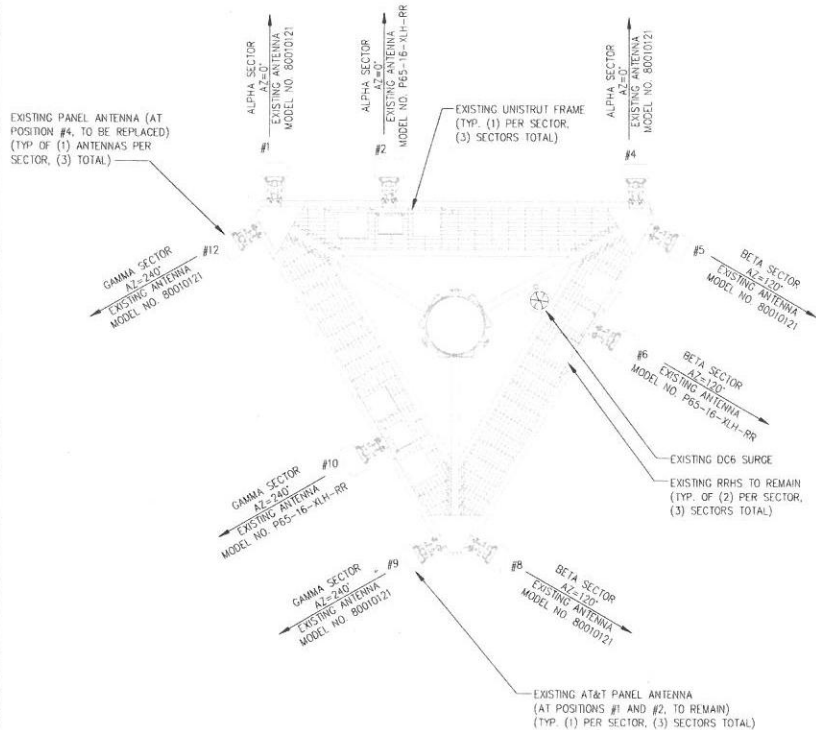
Project Title: **QUINCE ORCHARD**
USID# 54845
FA # 10004867
DARREN LLOYD ROAD
ROUTE 124 AND ROUTE 28
GAITHERSBURG, MD 20878

Prepared For:

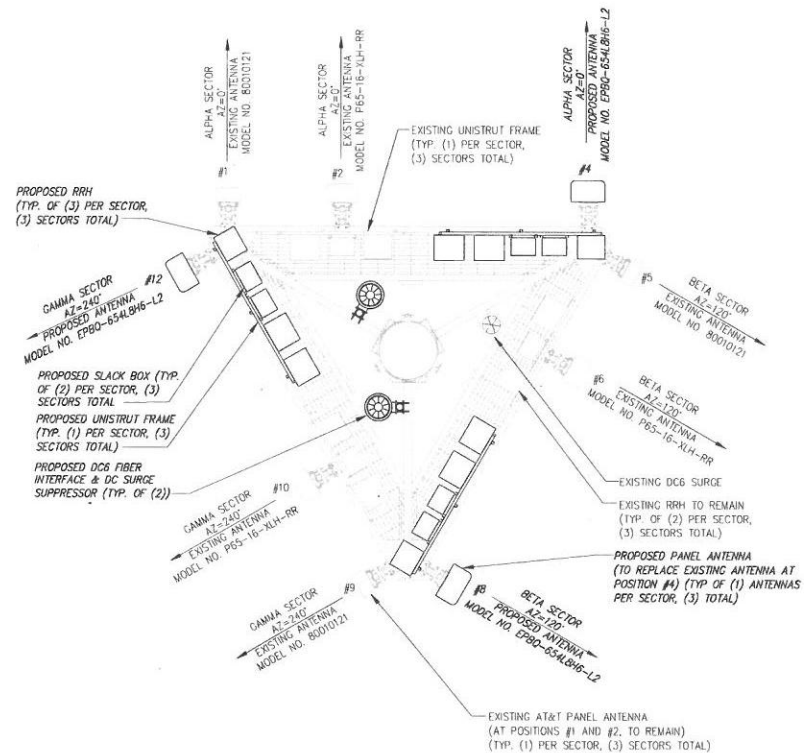
1885 HELLON PD
HUNTER, NY 10806
TEL (410) 886-8643
FAX (410) 886-8643

Drawing Title: **ELEVATION AND RF SCHEDULE**

Drawing Number: **C4**



1 ANTENNA ORIENTATION PLAN (EXISTING)
CS NOT TO SCALE



2 ANTENNA ORIENTATION PLAN (PROPOSED)
CS NOT TO SCALE

INFINIGY

1033 WATERPALET SHAKEP RD
BETHESDA, MD 20814
TEL: (301) 582-1222
FAX: (301) 582-0793

at&t

7550 STAMFORD DRIVE
HANOVER, MD 21076

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 20349 EXP. 12/31/2014

UNAUTHORIZED REPRODUCTION OR MODIFICATION OF THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS.

ISSUED FOR REVIEW	DATE	BY
Revised/Revised	DATE	BY
Drawn	DATE	DATE
Designed	DATE	DATE
Checked	DATE	DATE

Project Number 459-007

Project Title QUINCE ORCHARD

USID# 54845

FA # 10004887

DARNESTOWN ROAD
ROUTE 174 AND ROUTE 28
GAITHERSBURG, MD 20878

Prepared For:

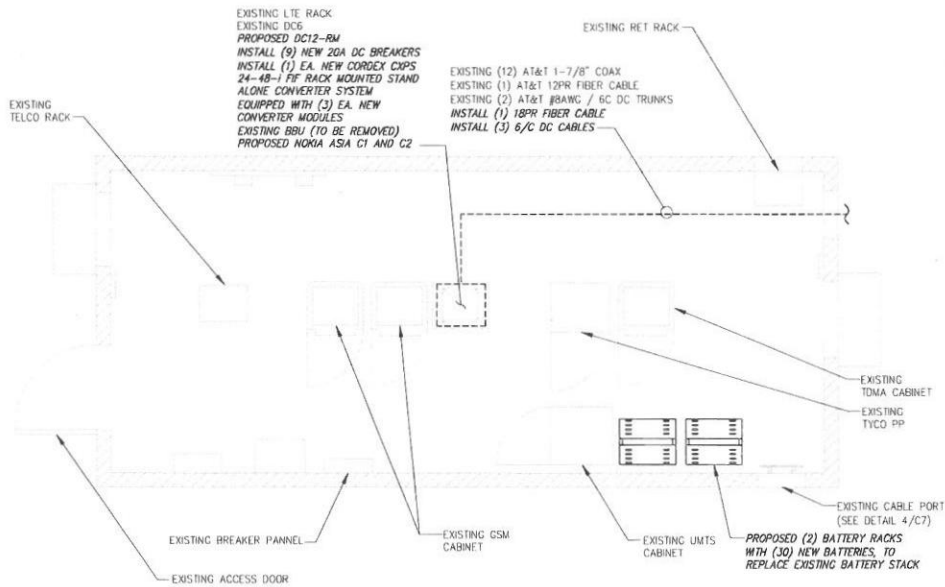
smartlink

1385 MELTON RD
HANOVER, MD 21076
TEL: (410) 882-8043
FAX: (410) 882-0562

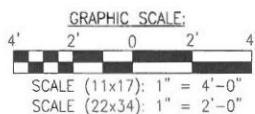
Drawing Title
ANTENNA ORIENTATION PLAN

Drawing Number

C5



1 EQUIPMENT ROOM LAYOUT PLAN
C6 SCALE: AS NOTED



Site Name: Quince Orchard
FA Number: 10004887
Design Criteria: Sector Expansion (LTE 4C + FirstNet)
Site Type: DC6
Tower type: Monopole
Antenna rad center: 151' AGL

Scope of Work

- Power scoping:**
1. Install new Cordex converter system w/ (3) new converter modules
 2. Install (9) new 20A DC breakers in new shelf for (9) new RRHs
 3. Remove (12) existing batteries and rack and replace with (2) new battery racks w/ (30) new batteries

- Shelter scoping:**
1. Decom UMTS 1900 technology
 2. Decom GSM technology
 3. Remove existing BBU and replace with Nokia FM4 ASIA C1 and C2
 4. Install (9) 20A DC breakers for additional (9) RRHs
 5. Install DC12-RM

- Cable scoping:**
1. Install (3) 6/C DC cable to support additional (9) RRHs
 2. Install (1) 18pr fiber cable to support additional (9) RRHs

- Tower scoping:**
1. Install (2) new DC6s to support additional (9) RRHs
 2. Install 1" conduit from (1) new DC to 2nd new DC6 for fiber pairs

Alpha/Beta/Gamma sectors:

1. Remove existing antenna at position #4 and replace with new EPBQ antenna
2. Install new B14 RRH at position #4
3. Install new B66A RRH at position #4
4. Install new WCS RRH at position #4
5. Install (2) new slack boxes at position #4
6. Install (2) 1" conduits from new DC6 to 1st new slack box for fiber & DC feeders
7. Install (2) 1" conduits from new 2nd new DC6 to 2nd new slack box for fiber & DC feeders
8. Install (2) 1" conduits from 1st new slack box to new B14 RRH at position #4
9. Install (2) 1" conduits from 1st new slack box to new B66A RRH at position #4
10. Install (2) 1" conduits from 2nd new slack box to new WCS RRH at position #4
11. Install (4) coax jumpers from B14 RRH to antenna in position #4
12. Install (4) coax jumpers from B66A RRH to antenna in position #4
13. Install (4) coax jumpers from WCS RRH to antenna in position #4

2 SCOPE OF WORK
C6 NOT TO SCALE

INFINIGY
1023 WATERVLEET SHALE RD
ALBANY, NY 12205
TEL: (518) 866-0793
FAX: (518) 866-0793

at&t
7100 STANFORD DRIVE
MANASSAS, VA 20108
TEL: (703) 792-7000
FAX: (703) 792-7000

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16418, EXPIR. 12/31/2018.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS.

Rev.	Number / Revision	Date
1	ISSUED FOR REVIEW	1/11/2017
2	DESIGNED	1/11/2017
3	CHECKED	1/11/2017

Project Title: QUINCE ORCHARD
USID# 54845
FA # 10004887
DARNESTOWN ROAD
ROUTE 174 AND ROUTE 28
GANTHERBURG, MD 20878

Prepared for:
smartlink
10000 US ROUTE 174
GANTHERBURG, MD 20878
TEL: (410) 842-8043
FAX: (410) 842-8043

Drawing Title: PAD LAYOUT AND SCOPE

Drawing Number: C6

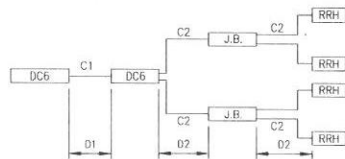


FIGURE 1 - TRUNK CABLE TO FG12

MAXIMUM CABLE LENGTHS FOR FIGURE 1

D1/D2 LENGTH (FT)			
CABLE	8 AWG	10 AWG	12 AWG
C1	265	165	104
C2	16	16	16

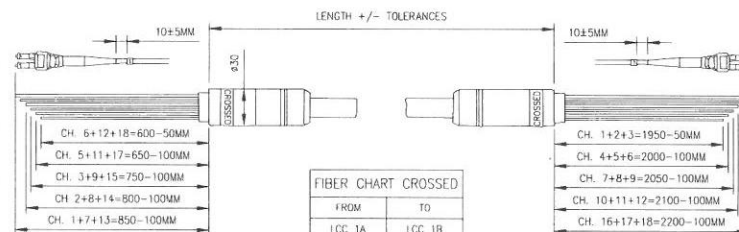
NOTES:

1. CABLE LENGTHS ARE APPLICABLE FOR ALL RRH MODELS.
2. NOMINAL SYSTEM VOLTAGE IS -48V DC, SUPPLIED FROM A 48V BATTERY. NORMAL OPERATING VOLTAGE IS 52V.
3. CABLE LENGTHS BASED ON ROSENBERGER CABLES.

1 DC CABLE LENGTH CHART
C7 NOT TO SCALE

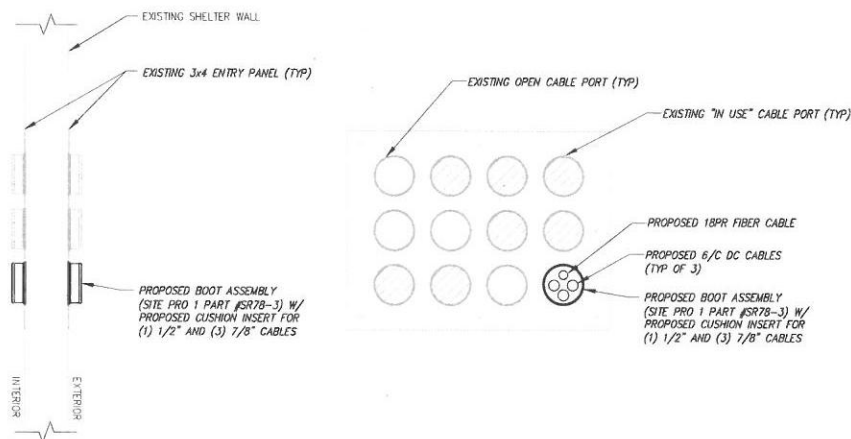
FIBER TRUNK CHANNEL	TECHNOLOGY	FREQUENCY BAND	SECTOR	RRH POSITION	FIBER TAC
1.1	LTE	700 B/C	ALPHA	2	700-2A
1.2			BETA	6	700-6B
1.3			GAMMA	10	700-10C
1.4	LTE	LTE B25 1900	ALPHA	3	1900-3A
1.5			BETA	7	1900-7B
1.6			GAMMA	11	1900-11C
1.7	LTE		SPARE		
1.8					
1.9					
2.1	LTE	LTE AWS	ALPHA	2	AWS-2A
2.2			BETA	6	AWS-6B
2.3			GAMMA	10	AWS-10C
2.4	LTE	LTE WCS	ALPHA		
2.5			BETA		
2.6			GAMMA		

2 FIBER TRUNK ASSIGNMENTS
C7 NOT TO SCALE



FROM	TO
LCC 1A	LCC 1B
LCC 1B	LCC 1A
LCC 2A	LCC 2B
LCC 2B	LCC 2A
LCC 3A	LCC 3B
LCC 3B	LCC 3A
...	...
LCC 18B	LCC 18A

3 FIBER CONNECTION DETAIL
C7 NOT TO SCALE



4 ENTRY PANEL DETAIL
C7 NOT TO SCALE

INFINIGY
1033 WATER/LET SHAKEP RD
ALBANY, NY 12205
TEL: (518) 860-0700
FAX: (518) 860-0701

at&t
7155 STIMULUS DRIVE
FARMINGDALE, NY 11735
TEL: (516) 332-1200
FAX: (516) 332-1201

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR SUPERVISED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16339 EXP. 05/31/2019.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS.

4. ISSUED FOR REVIEW ETC 8/18/17
Rev. Submittal / Revision Date Date
Drawn LJC Date 8/17/17
Designed JES Date 8/17/17
Checked JES Date 8/20/17
Project Number 499-002

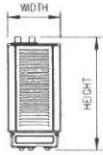
Project Title
QUINCE ORCHARD
USID# 54845
FA # 10004887
DARNESTOWN ROAD
ROUTE 124 AND ROUTE 28
GAITHERBURG, MD 20878

Prepared For
smartlink
1385 VUE LANE, 2ND FLOOR
FARMINGDALE, NY 11735
TEL: (516) 860-0700
FAX: (516) 860-0701

Drawing Title
FIBER/DC DETAILS

Drawing Number
C7

ALCATEL-LUCENT REMOTE RADIO HEAD (RRH)



NOTES:

1. ALCATEL-LUCENT (ALU) VIA AT&T SUPPLIES RRH AND RRH WALL MOUNTING BRACKET. SUBCONTRACTOR SHALL SUPPLY UNISTRUT AND INSTALL RRHs AND ALL MOUNTING HARDWARE INCLUDING ALU RRH WALL MOUNTING BRACKET IF NECESSARY. ALU MAKES CABLE TERMINATIONS.
2. DIMENSIONS AND WEIGHTS ARE FOR RRH WITHOUT MOUNTING BRACKET

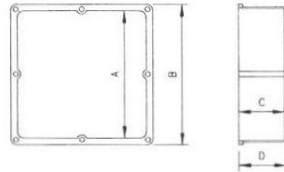
SIZE AND WEIGHT TABLE

RRH MODEL	HEIGHT x WIDTH x DEPTH	WEIGHT
ALU RRH 2x40-07AT	24.8"x11.5"x5.7"	52.91 LBS
ALU B25 RRH 4x30-4R	21.2"x11.97"x7.18"	52.9 LBS
ALU RRH 4x25-WCS-4R	31.5"x12.0"x8.7"	31.5 LBS
ALU B66A RRH4x45-4R	25.8"x11.8"x7.2"	52.9 LBS
NOKIA FLEXI 4 PIPE 760 160W FRBI (FRNT RRH)	23.03"x13.03"x6.65"	52.9 LBS

CLEARANCE TABLE

	CLEARANCE REQ'D
FRONT	36" FOR INSTALLATION ACCESS
REAR	2" (0" WITH SUPPLIED MOUNTING BRACKETS)
RIGHT	4" FOR AIR FLOW
LEFT	4" FOR AIR FLOW
TOP	12" FOR AIR FLOW
BOTTOM	12" FOR CONDUIT ROUTING

1 ALU RRH DETAIL
C8 NOT TO SCALE



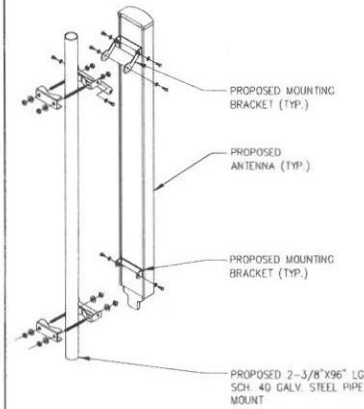
FRONT

SIDE

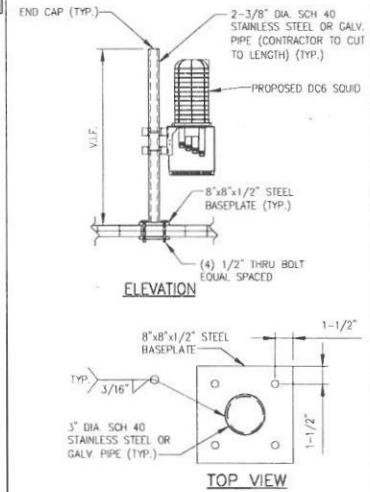
PRODUCT CODE	PART NUMBER	A	B	C	D	CASKET CODE	SCREW CODE	VOLUME
078250	JB12124	12"	12.687"	4"	4.25"	072749	072513 (8) 072549 (4)	577.4 CU. IN.
078251	JB12126	12"	12.687"	6"	6.25"			846.0 CU. IN.
078252	JB12128	12"	12.687"	8"	8.25"			1,102.0 CU. IN.

2 JUNCTION BOX DETAIL
C8 NOT TO SCALE

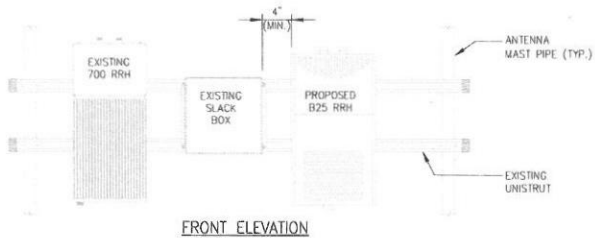
NOTE: CONTRACTOR IS TO USE MANUFACTURERS MOUNTING BRACKETS AND HARDWARE. NO U-BOLTS OR BEAM CLAMPS ALLOWED.



3 MOUNTING DETAIL
C8 NOT TO SCALE



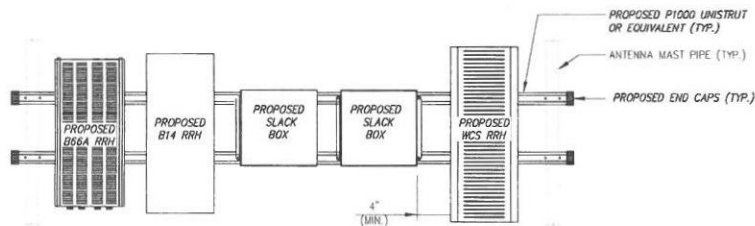
4 DC6 MOUNTING DETAIL
C8 NOT TO SCALE



FRONT ELEVATION

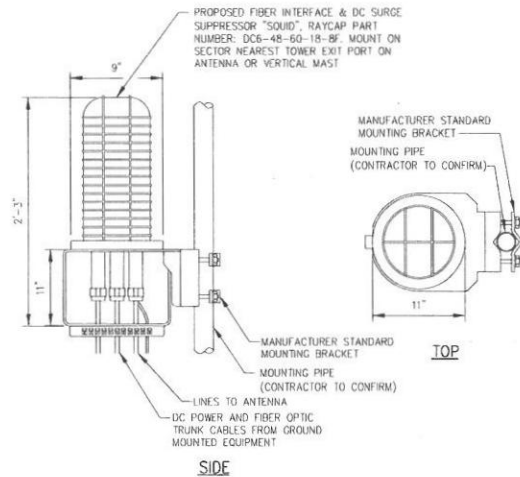
NOTES:

1. ALCATEL-LUCENT (ALU) VIA AT&T SUPPLIES THE RRH. SUBCONTRACTOR SHALL SUPPLY ALL OTHER MATERIALS AND INSTALL ALL MOUNTING HARDWARE. ALU INSTALLS RRH AND MAKES CABLE TERMINATIONS OR AS SCOPED BY MARKET.
2. CHANNEL AND MOUNTING HARDWARE SHALL HAVE HOT-DIPPED GALVANIZED FINISH.
3. MOUNT RRH TO UNISTRUT WITH 3/8" UNISTRUT BOLTING HARDWARE AND SPRING NUTS. TYPICAL FOUR PER BRACKET. SUBCONTRACTOR SHALL SUPPLY.
4. MOUNT FIBER AND POWER DISTRIBUTION BOX WITH FOUR (4) 1/4" UNISTRUT BOLTING HARDWARE AND SPRING NUTS.
5. NO PAINTING OF THE RRH OR SOLAR SHIELD IS ALLOWED.



FRONT ELEVATION

5 RRH MOUNTING DETAIL
C8 NOT TO SCALE



SIDE

6 DC6 DETAIL
C8 NOT TO SCALE

INFINIGY

at&t

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16349 FOR 12/17/2008.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS.

4 ISSUED FOR REVIEW 11/16/17
10/17/17 10/17/17 10/17/17
Drawn: ETC Date: 10/17/17
Designed: ETC Date: 10/17/17
Checked: ETC Date: 10/17/17

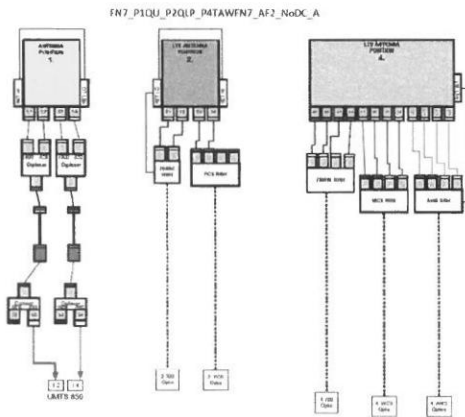
Project Number: 499-002

Project Title: QUINCE ORCHARD
USID# 54845
FA # 10004887
BARNESBORO ROAD
ROUTE 124 AND ROUTE 28
GUTHRIEBURG, MD 20878

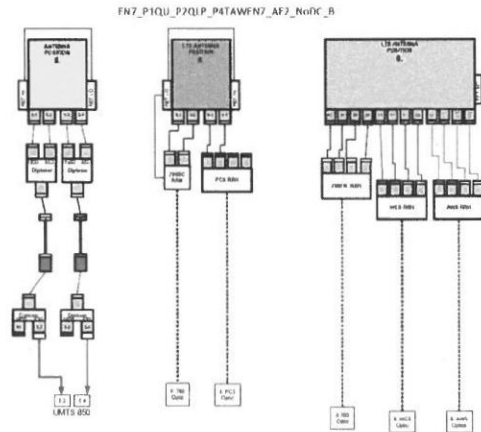
Prepared For: smartlink
100 BELLOWS RD
HAGERSTOWN, MD 20638
TEL: 410 882-8043
FAX: 410 221-2962

Drawing Title: EQUIPMENT DETAILS

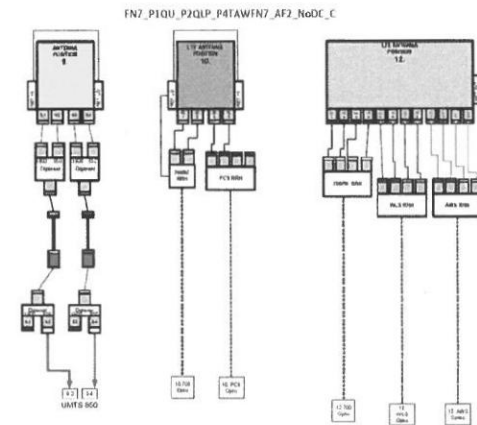
Drawing Number: C8



ALPHA SECTOR



BETA SECTOR



GAMMA SECTOR

1 PLUMBING DIAGRAM (FINAL CONFIGURATION)
C9 NOT TO SCALE

Commscope_12port_RRH4x25WCS



OR



RRU	Antenna
1	Y1 +45°
2	Y1 -45°
3	Y3 +45°
4	Y3 -45°

RRU	Antenna
1	Y2 +45°
2	Y2 -45°
3	Y4 +45°
4	Y4 -45°

SRJA.S.M.M.

Commscope_12port_RRH4x30-B25_RRH4x45-B66A



OR

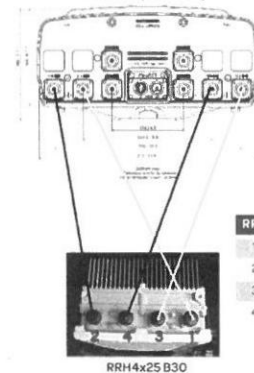


RRU	Antenna
1	Y1 +45°
2	Y1 -45°
3	Y3 +45°
4	Y3 -45°

RRU	Antenna
1	Y2 +45°
2	Y2 -45°
3	Y4 +45°
4	Y4 -45°

Kathrein_8port_RRH4x25WCS

8001076(7 or 8 or 9)



RRU	Antenna
1	Y1 +
2	Y1 -
3	Y2 +
4	Y2 -

2 RRH ANTENNA JUMPER DIAGRAM
C9 NOT TO SCALE

INFINIGY
1033 WATER/LET SHAVER RD
ALBANY, NY 12205
TEL: (518) 865-0795
FAX: (518) 865-0795

at&t
7155 STANFORD DRIVE
MANASSAS, VA 20108
TEL: (703) 797-1000
FAX: (703) 797-1000

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 94318 EXP. 12/31/2018.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS.

Drawn: ETC Date: 6/21/17
Designed: JES Date: 6/21/17
Checked: JES Date: 6/21/17

Project Number: 499-002

Project Title: QUINCE ORCHARD
USID# 54845
FA # 10004887
DARNESTOWN ROAD
ROUTE 124 AND ROUTE 28
GAITHERBURG, MD 20878

Prepared For:
smartlink
500 BELLO RD
FARMERSVILLE, VA 22615
TEL: (404) 885-8043
FAX: (404) 251-2962

Drawing Title:
RF PLUMBING DIAGRAM

Drawing Number:
C9

AC POWER PANEL No. 1 (Existing)													
120/240 VOLTS, 1-PHASE, 3-WIRE, 400A													
MAIN BREAKER RATING (A)							SYSTEM VOLTAGE (V)						
400							240						
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION		
GPS 2424 RECTIFIER # 5 (596B5)	1908	c	30/2	1	3816		2	c	1908		GPS 2424 RECTIFIER # 9 (596B5)		
	1908	c		3		3816	4	c	1908				
GPS 2424 RECTIFIER # 6 (596B5)	1908	c	30/2	5	1908		6	30/2			SPARE		
	1908	c		7		1908	8				(EMPTY RECTIFIER SLOT # 10)		
GPS 2424 RECTIFIER # 7 (596B5)	1908	c	30/2	9	2448		10	20	nc	540	RECEPTACLE (Group # 1)		
	1908	c		11		2088	12	20	c	180	TELCO RECEPTACLE		
INTERIOR LIGHTS	360	nc	20	13	360		14	20			SPARE		
EXTERIOR LIGHT	300	nc	20	15		4684	16	60/2	nc	4584	HVAC # 2 (6-Ton w/ 5KW Htr)		
SPARE			20	17	4584		18	20	nc	4584	RECEPTACLES (Group # 2)		
HVAC # 1 (6-Ton w/ 5KW Htr)	4584	c	60/2	19		5124	20	20	nc	540	RECEPTACLES (Group # 3)		
	4584	c		21	5124		22	20	nc	540	RECEPTACLES (Group # 3)		
GPS 2424 RECTIFIER # 8 (596B5)	1908	c	30/2	23		2088	24	20	nc	180	EMERGENCY LIGHT		
	1908	c		25	1908		26	20			SPARE		
POWER FAIL ALARM RELAY	1	c	30/2	27		1908	28	30/2	c	1908	GPS 2424 RECTIFIER # 1 (596B5)		
	1	c		29	1908		30				GPS 2424 RECTIFIER # 2 (596B5)		
BLANK				31		1908	32	30/2	c	1908	GPS 2424 RECTIFIER # 3 (596B5)		
BLANK				33	1908		34		c	1908			
BLANK				35		1908	36	30/2	c	1908	GPS 2424 RECTIFIER # 4 (596B5)		
BLANK				37		1908	38		c	1908			
BLANK				39		1908	40	30/2	c	1908	GPS 2424 RECTIFIER # 5 (596B5)		
BLANK				41	1908		42	30/2	c	1908			
PHASE TOTALS (VA):							27781 27541						
CURRENT PER PHASE (A):							277 275						
PANEL TOTAL (VA):							55322						
Legend: c = continuous, nc = non-continuous													

PANEL CAPACITY (kVA): 96.0 CONNECTED LOAD (kVA): 55.3
 PANEL LOADING (100% non-cont. load) (kVA): 11.6
 PANEL LOADING (125% continuous load) (kVA): 54.6
 PANEL LOADING (TOTAL) (kVA): 66.2
 SPARE CAPACITY (kVA): 29.8

1 EXISTING AC PANEL "1" SCHEDULE
 E1 NOT TO SCALE

AC POWER PANEL No. 1 (Proposed)													
120/240 VOLTS, 1-PHASE, 3-WIRE, 400A													
MAIN BREAKER RATING (A)							SYSTEM VOLTAGE (V)						
400							240						
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION		
GPS 2424 RECTIFIER # 5 (596B5)	1908	c	30/2	1	3816		2	c	1908		GPS 2424 RECTIFIER # 9 (596B5)		
	1908	c		3		3816	4	30/2	c	1908			
GPS 2424 RECTIFIER # 6 (596B5)	1908	c	30/2	5	1908		6	30/2			SPARE		
	1908	c		7		1908	8				(EMPTY RECTIFIER SLOT # 10)		
GPS 2424 RECTIFIER # 7 (596B5)	1908	c	30/2	9	2448		10	20	nc	540	RECEPTACLE (Group # 1)		
	1908	c		11		2088	12	20	c	180	TELCO RECEPTACLE		
INTERIOR LIGHTS	360	nc	20	13	360		14	20			SPARE		
EXTERIOR LIGHT	300	nc	20	15	4884		16	60/2	nc	4584	HVAC # 2 (6-Ton w/ 5KW Htr)		
SPARE			20	17	4584		18	20	nc	4584	RECEPTACLES (Group # 2)		
HVAC # 1 (6-Ton w/ 5KW Htr)	4584	c	60/2	19		5124	20	20	nc	540	RECEPTACLES (Group # 3)		
	4584	c		21	5124		22	20	nc	540	EMERGENCY LIGHT		
GPS 2424 RECTIFIER # 8 (596B5)	1908	c	30/2	23		2088	24	20	nc	180	SPARE		
	1908	c		25	1908		26	20					
POWER FAIL ALARM RELAY	1	c	30/2	27		1908	28	30/2	c	1908	GPS 2424 RECTIFIER # 1 (596B5)		
	1	c		29	1908		30				GPS 2424 RECTIFIER # 2 (596B5)		
BLANK				31		1908	32	30/2	c	1908	GPS 2424 RECTIFIER # 3 (596B5)		
BLANK				33	1908		34				GPS 2424 RECTIFIER # 4 (596B5)		
BLANK				35		1908	36	30/2	c	1908			
BLANK				37	1908		38						
BLANK				39		1908	40	30/2	c	1908			
BLANK				41	1908		42						
PHASE TOTALS (VA):							27781 27541						
CURRENT PER PHASE (A):							277 275						
PANEL TOTAL (VA):							55322						
Legend: c = continuous, nc = non-continuous													

PANEL CAPACITY (kVA): 96.0 CONNECTED LOAD (kVA): 55.3
 PANEL LOADING (100% non-cont. load) (kVA): 11.6
 PANEL LOADING (125% continuous load) (kVA): 54.6
 PANEL LOADING (TOTAL) (kVA): 66.2
 SPARE CAPACITY (kVA): 29.8

2 PROPOSED AC PANEL "1" SCHEDULE
 E1 NOT TO SCALE

SPCT Scope of Work Summary:

AC PANEL VA LOAD CALCS. SEE "PROPOSED" AC PANEL SCHEDULE TAB HEREIN FOR VA LOADING AND BRANCH CIRCUIT ASSIGNMENTS)

1. PASSES AC PANEL CAPACITY:

PHASE-A AMPS = 277 Amps (Est.)
 PHASE-B AMPS = 275 Amps (Est.)

OTHER:

- A FACTOR OF 1.25% APPLIED TO ALL VA LOADS DEFINED AS "CONTINUOUS" i.e. OPERATING CONTINUOUSLY FOR A DURATION GREATER THAN (3) HOURS PER THE N.E.C.
- A FACTOR OF 1.25% APPLIED TO THE LARGEST MOTOR LOAD VA PER THE N.E.C. (WHEN APPLICABLE)

DC POWER PLANT, RECTIFIERS & CONVERTERS:

- PASSES RECTIFIER CAPACITY: EXISTING DISCONTINUED TYCO 1200A +24VDC TYCO MODEL GPS 2424 [CEQ.08273] POWER PLANT IS EQUIPPED WITH (9) ENERGIZED 596 B5 125A RECTIFIERS [CEQ.21333]; ONLY (6) REQUIRED TO SATISFY N+1.
- FAILS CONVERTER CAPACITY: THERE IS (1) EXISTING CORDEX STAND-ALONE FIF RACK MOUNTED CONVERTER SYSTEM IS OUTFITTED WITH (4) EA. CONVERTER MODULES. INSTALL (1) EA. NEW CORDEX CXPS 24-48-1 FIF RACK MOUNTED STAND ALONE CONVERTER SYSTEM [NEQ.13289] EQUIPPED WITH (3) EA. NEW CONVERTER MODULES [NEQ.12371] FOR A REVISED TOTAL OF (7) EA. CONVERTERS.
- ENSURE PROPOSED LTE 3C-4C & FIRSTNET LOADS ARE POWERED FROM NEW STAND-ALONE CONVERTER SYSTEM -48VDC BUSS.
- PROPOSED DC BUSS AMP DRAWS:
 +24VDC = 492 Amps (Est.) (332 + 160)
 -48VDC = 48 Amps (Est. Stand-AloneConv Sys # 1)
 -48VDC = 106 Amps (Est. Stand-AloneConv Sys # 2)

BATTERIES:

- FAILS BATTERY RESERVE CAPACITY @ 2.65 HRS.
- REMOVE (1) EA. EXISTING STRING OF (12) GNB ABSOLYTE GP MODEL 100-G31 2V CELLS [NEQ.13484].
- INSTALL (2) EA. NEW SEISMIC RATED INDOOR EMERSON NETSURE VRLA +24VDC BATTERY RACKS [NEQ.15311] EQUIPPED WITH (26) EA. GNB MARATHON M12V180FT BATTERIES [NEQ.15171] i.e. (13) 180 Ahr STRINGS CONFIGURED @ +24VDC NOMINAL TO ACHIEVE 4.14 HRS OF BATTERY RESERVE CAPACITY.

HVAC:


- PASSES HVAC TONNAGE CAPACITY; THERE ARE (2) EXISTING MARVAIR 6-TON WALL PACK HVAC UNITS EACH EQUIPPED WITH 5KW HEATERS

GENERATOR:


- NO PERMANENT STANDBY GENERATOR.

ESTIMATED SITE MAX. AC LOAD (AMPS): 174.40 AMPS
 ESTIMATE 200A SERVICE SUFFICIENT

3 POWER AUDIT RESULTS
 E1 NOT TO SCALE



1033 WATERBURY STREET
 ALBANY, NY 12205
 TEL: (518) 860-7000
 FAX: (518) 860-7000



1155 STANFORD DRIVE
 MANHATTAN, NY 10805


PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW YORK, LICENSE NO. 36499 EXP. 12/31/2009.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS.

DESIGNED BY	DATE	10/12/17
CHECKED BY	DATE	10/23/17
PROJECT NUMBER	499-002	

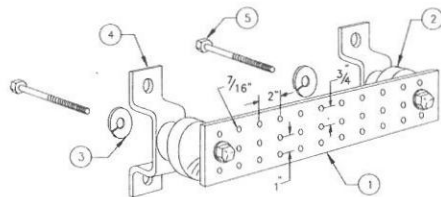
Project Title: QUINCE ORCHARD
 USID# 54845
 FA # 10004887
 DARNES STOWN ROAD
 ROUTE 124 AND ROUTE 126
 CANTON, MD 20878

Prepared for:



138C WELDON RD
 ALBANY, NY 12205
 TEL: (518) 860-5053
 FAX: (518) 860-5053

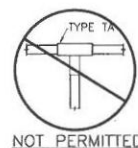
Drawing Title: AC PANEL "1" SCHEDULE AND AUDIT RESULTS
 Drawing Number: E1



LEGEND

- 1 - SOLID TINNED COPPER GROUND BAR, 1/4" x 4" x 20" MIN., NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
- 2 - INSULATORS, NEWTON INSTRUMENT CO. CAT. NO. 3081-4
- 3 - 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-B
- 4 - WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056
- 5 - 5/8-11 X 1" H.H.C.S. BOLTS, NEWTON INSTRUMENT CO. CAT. NO. 3012-1
- 6 - GROUND BAR SHALL BE SIZED TO ACCOMMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY
- 7 - GROUND BARS SHALL NEITHER BE FIELD FABRICATED NOR NEW HOLES DRILLED
- 8 - GROUND LUGS SHALL MATCH THE HOLE SPACING ON THE BAR
- 9 - HARDWARE DIAMETER SHALL BE MINIMUM 3/8"

1 GROUND BAR G1 NOT TO SCALE



NOT PERMITTED



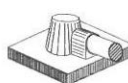
TYPE GR



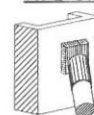
TYPE SV



TYPE PH

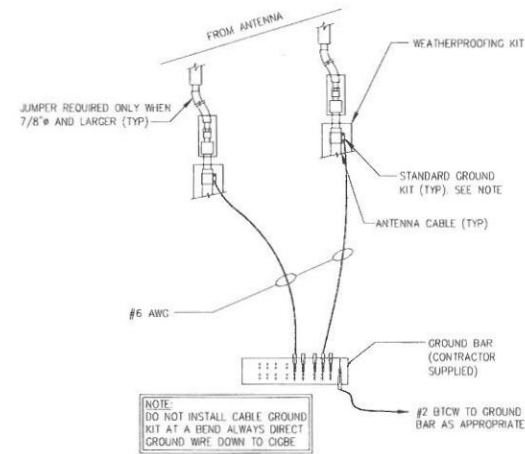


TYPE KA

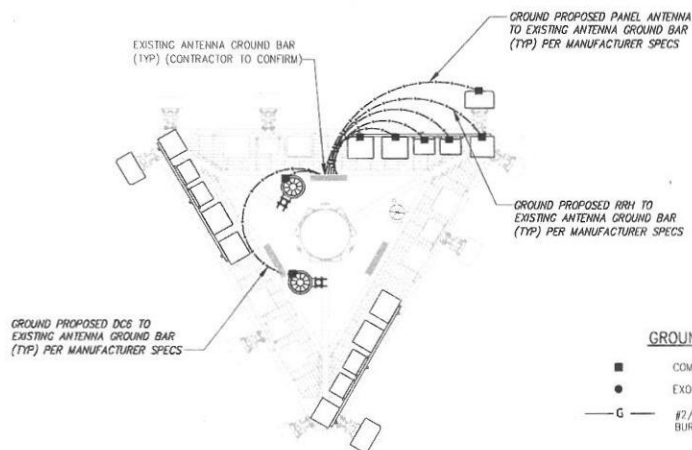


TYPE VS

2 CADWELDS (TYPICAL) G1 NOT TO SCALE



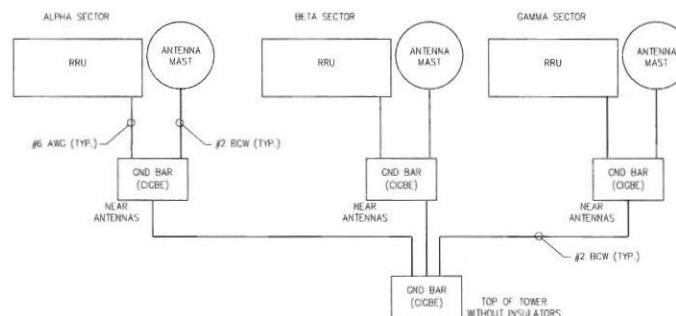
3 CONNECTION OF GROUND WIRES TO GROUNDING BARS @ ANTENNAS G1 NOT TO SCALE



4 GROUNDING DETAILS G1 NOT TO SCALE

GROUNDING SYMBOLS

- COMPRESSION TYPE CONNECTION
- EXOTHERMIC WELD TYPE CONNECTION
- G — #2/0 BICW COPPER CONDUCTOR BURIED GROUND CABLE



5 SCHEMATIC DIAGRAM GROUNDING SYSTEM G1 NOT TO SCALE

INFINIGY
1033 WATERBURY STREET
ALBANY, NY 12205
TEL: (518) 866-0790
FAX: (518) 866-0793

at&t
1150 STATE STREET
HARTFORD, CT 06105
TEL: (860) 486-0790
FAX: (860) 486-0793

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 94348, EXP. 12/31/2018.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS.

Rev.	Submitted / Revision	By	Date
1	08/20/17	08/20/17	08/20/17

Project Number: 499 002

Project Title: QUINCE ORCHARD
USID# 54845
FA # 10004887
DARNESTOWN ROAD
ROUTE 124 AND ROUTE 28
CATHERBURG, MD 20618

Prepared For: smartlink
1362 WELDON RD
HARTFORD, CT 06105
TEL: (860) 486-0790
FAX: (860) 486-0793

Drawing Title: **GROUNDING DETAILS**

Drawing Number: **G1**